

CRF Errors Corrected by the STIC Systems Branch

Ref/10 #8

Serial Number: 10/069,799

CRF Processing Date: 8/24/2002  
 Edited by: [Signature]  
 Verified by: [Signature] (STIC staff)

ENTERED

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically: \_\_\_\_\_
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other \_\_\_\_\_
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: \_\_\_\_\_
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: \_\_\_\_\_
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: \_\_\_\_\_
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: \_\_\_\_\_
- ☐ Deleted extra, invalid, headings used by an applicant, specifically: \_\_\_\_\_
- ☒ Deleted: ☒ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as \_\_\_\_\_
- ☐ Inserted mandatory headings, specifically: \_\_\_\_\_
- ☐ Corrected an obvious error in the response, specifically: \_\_\_\_\_
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: \_\_\_\_\_
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted **ending** stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: \_\_\_\_\_
- ☐ Other: \_\_\_\_\_

\*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form. 3/1/95



PCT10

## RAW SEQUENCE LISTING

DATE: 08/21/2002

PATENT APPLICATION: US/10/069,799

TIME: 20:18:44

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\08212002\J069799.raw

3 <110> APPLICANT: Farn, Jacinta  
 4 Strugnell, Richard  
 5 Tennent, Jan  
 8 <120> TITLE OF INVENTION: Vaccine antigens of Moraxella  
 10 <130> FILE REFERENCE: 20-02  
 12 <140> CURRENT APPLICATION NUMBER: US 10/069,799  
 14 <141> CURRENT FILING DATE: 2002-02-28  
 16 <150> PRIOR APPLICATION NUMBER: PCT/AU00/01048  
 18 <151> PRIOR FILING DATE: 2000-08-31  
 20 <150> PRIOR APPLICATION NUMBER: AU PQ2571  
 22 <151> PRIOR FILING DATE: 1999-08-31  
 24 <160> NUMBER OF SEQ ID NOS: 9  
 26 <170> SOFTWARE: PatentIn Ver. 2.1  
 28 <210> SEQ ID NO: 1  
 29 <211> LENGTH: 1114  
 30 <212> TYPE: PRT  
 31 <213> ORGANISM: Moraxella bovis  
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 37 Leu Ser Met Ala Cys Met Leu Val Ile Ser Ala Ser Ser Thr Val Ser  
 38 20 25 30  
 40 Tyr Ala Asn Ser Ala Pro Met Ile Val Asp Ser Gln Tyr Asn Ser Ser  
 41 35 40 45  
 43 Lys Tyr Ser Phe Tyr Asp Tyr Tyr Leu Asp Phe Leu Lys Arg Phe Arg  
 44 50 55 60  
 46 Pro Thr Pro Thr Pro Val Pro Ser Pro Val Arg Pro Ala Pro Glu Leu  
 47 65 70 75 80  
 49 Val Arg Pro Thr Pro Ala Pro Ile Pro Ala Pro Thr Pro Val Pro Thr  
 50 85 90 95  
 52 Pro Ala Pro Ile Ser Gly Gly Ile Ser Gly Ser Tyr Ile Ala Pro Val  
 53 100 105 110  
 55 Ser Pro Ser Glu Val Arg Gln Pro Asp Tyr Thr Arg Arg Val Gln Ala  
 56 115 120 125  
 58 Asn Leu Lys Arg Asn Gln Pro Ala Pro Ser Ala Gly Thr Arg Thr Gly  
 59 130 135 140  
 61 Tyr Ser Val Met Asp Thr Ser Asn Asn Ser Asn Leu Thr Ser Lys Phe  
 62 145 150 155 160  
 64 Tyr Gly Thr Thr Glu Asp Gly Tyr Ala Glu Arg Leu Asp Asn Leu Lys  
 65 165 170 175  
 67 Asn Thr Ile Asp Thr Arg Gln Ala Lys Val Gly Val Ile Asp Thr Gly  
 68 180 185 190  
 70 Ile Asn Arg Phe Asn Arg Asp Leu Val Gly Ala Asn Val His Asp Thr

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Input Set : A:\PTO.AMC.txt

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76 Asn Asp Ser Gly Ile Val Glu Ile Pro Thr Thr Ser Ala Ser Gly Ser
77 225          230          235          240
79 His Gly Asn Gln Met Ala Ala Val Ile Ala Gly Asn Asn Gly Met Thr
80          245          250          255
82 Asn Ala Lys Ile Tyr Gly Ser Asp Ser Ile Asp Arg Arg Ser Asn Gly
83          260          265          270
85 Gly Asn His Phe Leu Met Met Arg Lys Leu Asn Gln Asp His Gly Val
86          275          280          285
88 Lys Ile Phe Asn Asn Ser Trp Gly Ser Asn Asn Thr Asp Gln Trp Tyr
89          290          295          300
91 Tyr Asp Ala Gln Arg Leu Asn Tyr Asn Pro Thr Thr Gly Gln Ile Asn
92 305          310          315          320
94 Pro Asn Pro Tyr Arg Thr Ser Ile Thr Asn Ala Glu Val Thr Leu Pro
95          325          330          335
97 Val Ile His Asp Leu Ile Met Asn Arg Asp Ser Leu Ile Ile Lys Ala
98          340          345          350
100 Thr Gly Asn Glu Gly Leu Asn Asp Ala His Asp Glu Asn Leu Ala Pro
101          355          360          365
103 Leu Met Asn Ser Asn Phe Lys Lys Gly Phe Ile Thr Val Ser Ser Pro
104          370          375          380
106 Arg Glu Asp Phe Gly Lys Ala Asn His Cys Gly Arg Thr Ala Glu Trp
107 385          390          395          400
109 Cys Val Ser Ala Thr Ser Ser Thr Gln Asn Tyr Ala Asn Asp Gly Arg
110          405          410          415
112 Leu Ser Ser Tyr Lys Gly Thr Ser Pro Ala Thr Ala Arg Val Ser Gly
113          420          425          430
115 Thr Ala Val Leu Val Gln Ser Ala Tyr Pro Trp Met Lys Asn Glu Asn
116          435          440          445
118 Ile Ser Gln Thr Ile Leu Gly Thr Ala Lys Asp Phe Ser Glu Ile Thr
119          450          455          460
121 Ala Asn Ser Pro Asn Gly Tyr Gln Gly Leu Arg Lys Val Ser Arg Leu
122 465          470          475          480
124 Pro Ser Gly Tyr Tyr Gly Ser Tyr Tyr Thr Asp Asn Gln Gly Asn Phe
125          485          490          495
127 Tyr Val Pro Gly Asn Val Asn Trp Glu Asn Arg Arg Ile Val Ala Asn
128          500          505          510
130 His Asn Gly Lys Asn Ile Thr Trp Glu Asp Gly Trp Gly Leu Leu Asp
131          515          520          525
133 Pro Glu Ala Ala Ala Lys Gly Tyr Gly Gly Phe Tyr Trp Asp Asn Val
134          530          535          540
136 Glu Leu Asp Thr Lys Gly Thr Pro Leu Ser Val Phe Tyr Asn Asp Leu
137 545          550          555          560
139 Lys Gly Asp Lys Gly Phe Thr Lys Lys Gly Glu Gly Lys Leu Val Phe
140          565          570          575
142 Thr Gly Asn Asn Ser Tyr Lys Gly Asp Ser Val Ile Glu Gly Gly Ser
143          580          585          590

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148 Gly Glu Leu Thr Gly Tyr Gly Asn Val Ala Asn Val Arg Gln Thr Gly
149          610          615          620
151 Gly Trp Val Asn Asn Glu Gly Asn Leu Asn Ile Arg Gly Asp Tyr Asn
152 625          630          635          640
154 Ile Asn Thr Gln Arg Gly Val Asp Ala Gly Leu Lys Ala Gln Phe Gly
155          645          650          655
157 Asn Met Leu Thr Val Asp Gly Lys Ala Lys Leu Gly Gly Thr Leu Asn
158          660          665          670
160 Leu Thr Gly Glu Thr Lys Asp Gly Ile Ile Ser Lys Ser Gly Ser Arg
161          675          680          685
163 Ser Thr Val Leu Arg Ala Lys Arg Gly Leu Glu Gly Gln Phe Asp Asn
164          690          695          700
166 Tyr Arg Ser Ser Asn Pro Leu Phe Glu Val Thr Asn Val Glu Tyr Thr
167 705          710          715          720
169 Pro Glu Val Asp Arg Asn Gly Arg Val Val Gly Gly Ser Arg Thr Asn
170          725          730          735
172 Asn Asp Val Gln Val Thr Ala Lys Arg Leu Ser Ala Gly Asn Val Val
173          740          745          750
175 Tyr Gly Ile Ser Met Asn Asp Ser Gly Ser Arg Val Ala Gln Asn Leu
176          755          760          765
178 Asp Lys Val Leu Asn Asp Leu Asp Lys Lys Gln Glu Thr Gln Gly Ser
179          770          775          780
181 Leu Thr Ser Asp Glu Lys Gln Phe Ala Asn Arg Val Phe Thr Gly Phe
182 785          790          795          800
184 Glu Asn Met Asn Ser Gly Ala Glu Ser Lys Leu Ser Thr Val Ser Thr
185          805          810          815
187 Asn Arg Glu Leu Tyr Lys Leu Asp Pro Thr Phe Tyr Ala Asp Ser Ala
188          820          825          830
190 Leu Asn Ala Val Glu Asp Ser Ala Asn His Ala Thr Glu Phe Gly Lys
191          835          840          845
193 Arg Val Ser Ala Pro Arg Gly Val Trp Gly Asn Ile Ser His His Asp
194          850          855          860
196 Tyr Asp Val Glu Leu Glu His Ala Thr Ser Ala Arg Lys Gly Asn Asn
197 865          870          875          880
199 Ile Ser Val Gly Ala Ser Thr Gln Thr Ala Ala Asp Ile Ser Val Gly
200          885          890          895
202 Ala Gln Leu Asp Val Ser Lys Leu Asp Leu Glu Glu Ser Val Tyr Gly
203          900          905          910
205 Ile Gly Asn Lys Thr Lys Thr Asp Ser Ile Gly Leu Thr Val Gly Ala
206          915          920          925
208 Ser Lys Lys Leu Gly Asp Ala Tyr Leu Ser Gly Trp Val Lys Gly Ala
209          930          935          940
211 Lys Val Asp Thr Glu Ala Asn Arg Gly Glu Asn Ser Asn Lys Val Glu
212 945          950          955          960
214 Tyr Asn Gly Lys Leu Tyr Gly Ala Gly Ile Gln Ala Gly Thr Asn Ile
215          965          970          975
217 Asp Thr Ala Ser Gly Val Ser Val Gln Pro Tyr Ala Phe Val Asn His

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224          1010          1015          1020
226 Val Phe Gln Ala Thr Pro Ala Leu Gln Leu Thr Gly Gly Val Gln Val
227          1025          1030          1035          1040
229 Ala His Ala Val Ser Arg Asp Thr Asn Leu Asp Thr Arg Tyr Val Gly
230          1045          1050          1055
232 Thr Ala Thr Asp Val Gln Tyr Gly Thr Trp Asp Thr Asp Lys Thr Lys
233          1060          1065          1070
235 Trp Ser Ala Lys Val Gly Ala Asn Tyr Asn Val Thr Pro Asn Ser Gln
236          1075          1080          1085
238 Val Gly Leu Asn Tyr Ser Tyr Thr Gly Ser Gly Asp Ser Asp Ala Ser
239          1090          1095          1100
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254 caccgtcacc ctggatgctg taggcatagg cttggttatg ccggtactgc cgggcctcct 180
255 gcgggatata gtccattccg acagcatcgc cagtcactat ggcgtgctgc tagcgtata 240
256 tgcgttgatg caatttctat gcgcaccctg tctcggagca ctgtccgacc gctttggcgg 300
257 ccgcccagtc ctgctcgctt cgctacttgg agccactatc gactacgcga tcatggcgac 360
258 cacaccgctc ctgtggatca ataattaatg aacatatata ctctatttaa tatttcttat 420
259 ttattcgtaa tattgccata aaaataatac attatttcta tattaactaa actgttaata 480
260 tttgtaaata ataaacattt gtttatctaa aaaaataaat aatataaatc aagcaattac 540
261 aatcttattt ttgaaaatac aataatactg caattgctta atctagacat taagtttatt 600
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265 gaggtgtaat atgtcattac aaactcaacc tgccaagaga gggttctatg ttaagccttt 840
266 aagtatggct tgcattgctg taattagtgc tagtagtacg gtaagttatg ccaactcagc 900
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281 acagattaat ccaaaccctt acagaaccag tattaccaat gctgaagtga ctttgccctgt 1800
282 cattcatgat cttattatga atcgtgactc gcttatcatt aaagcaacag gtaacgaagg 1860
283 cttgaacgat gctcatgatg aaaacctagc accgctcatg aacagcaact tcaaaaaagg 1920
284 tttcattact gtctcctcgc ctagagaaga ttttggtaaa gcgaatcatt gtggtcgaac 1980
285 tgccgaatgg tgtgtatccg caacatcatc tacccaaaat tacgccaacg atggcagact 2040
286 gagtagctat aagggtacat cacctgcaac cgctcgtgtg tccggcacgg cagtgcctgt 2100
287 gcaatctgct tatccttgga tgaaaaatga aaatatctct caaacatttt tgggtactgc 2160
288 caaggatttc tcagagatta ctgccaattc acctaatggc taccaaggac taagaaaggc 2220
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290 tgttcctggc aatgtcaatt gggaaaaccg tcgaattgtc gctaatacata acggcaagaa 2340
291 cattacatgg gaagatggtt ggggtttgtt agatccagaa gcggccgcta aagggttatgg 2400
292 tggtttctat tgggataatg tggaattaga cactaaaggc acgcctttat ctgtattcta 2460
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302 tgacgtgcaa gtaactgcca aacgtctaag tgcaggcaat gttgtttatg gcacagcat 3060
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308 gggtaatatc agtcaccatg attatgatgt agaactagag catgctacaa gtgcacgtaa 3420
309 aggcaacaac attagtgttg gtgcaagcac tcaaactgca gccgacatta gtgttggtgc 3480
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315 cgatggtagc ttcaatgacg gtcttaacgt tgttgacgac atcgaagcaa aacaaactca 3840
316 ggtaggtgtg ggtgctgata tgggtgtcca agcaacacct gctctacagc ttactggtgg 3900
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322 aaaattttcc caaaaaaagc gtgataatta ccacgctttt ttattgcata ttgcaaaata 4260
323 gtattgctat tatgggttgt taagcaaccc gtccaaatc cccctaaaca actccacccc 4320
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325 cgac
328 <210> SEQ ID NO: 3
329 <211> LENGTH: 616

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RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/069,799

DATE: 08/21/2002  
TIME: 20:18:46

Input Set : A:\PTO.AMC.txt  
Output Set: N:\CRF4\08212002\J069799.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:7; Xaa Pos. 14,16